

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/508,759B
Source: IFWP
Date Processed by STIC: 8/28/06

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/508,759B

TIME: 09:54:43

Input Set : A:\A30215APGSEQ-amended.txt

Output Set: N:\CRF4\08282006\J508759B.raw

```

3 <110> APPLICANT: APROGEN INC.
5 <120> TITLE OF INVENTION: HUMANIZED ANTIBODY AND PROCESS FOR PREPARING SAME
7 <130> FILE REFERENCE: PCA30215/APG
9 <140> CURRENT APPLICATION NUMBER: US/10/508,759B
10 <141> CURRENT FILING DATE: 2004-09-22
12 <150> PRIOR APPLICATION NUMBER: KR10-2002-0015708
13 <151> PRIOR FILING DATE: 2002-03-22
15 <160> NUMBER OF SEQ ID NOS: 38
17 <170> SOFTWARE: KopatentIn 1.71
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 345
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
24 <220> FEATURE:
25 <223> OTHER INFORMATION: Variable region of humanized light chain HZVII
27 <400> SEQUENCE: 1
28 caggtccagc tgggtgcagtc tggagctgaa gtgaagaagc ctggggcctc agtgaagggt      60
30 tcctgcaaag cttctggcta caccttcacc agtgcttggg tgaactgggt gcgacaggcc      120
32 cctggacagg gtcttgagtg gatgggacgg atttatccta gtggtggaag cactagctac      180
34 gcacagaagt tccagggcag agtcacaatg actgcagaca aatccacgag cacagtctac      240
36 atggagctca gcagcctgag atctgaggac acggcggtgt attactgtgc aagagagtac      300
38 cgggttgccc gttggggcca aggaactctg gtcactgtct cttca                      345
41 <210> SEQ ID NO: 2
42 <211> LENGTH: 115
43 <212> TYPE: PRT
44 <213> ORGANISM: Artificial Sequence
46 <220> FEATURE:
47 <223> OTHER INFORMATION: Variable region of humanized light chain HZVII
50 <400> SEQUENCE: 2
51 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Ala Pro Gly Ala
52 1          5          10          15
54 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Ala
55          20          25          30
57 Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
58          35          40          45
60 Gly Arg Ile Tyr Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
61          50          55          60
63 Gln Gly Arg Val Thr Met Thr Ala Asp Lys Ser Thr Ser Thr Val Tyr
64 65          70          75          80
66 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
67          85          90          95
69 Ala Arg Glu Tyr Arg Val Ala Arg Trp Gly Gln Gly Thr Leu Val Thr
70          100          105          110

```

RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/508,759B

TIME: 09:54:43

Input Set : A:\A30215APGSEQ-amended.txt

Output Set: N:\CRF4\08282006\J508759B.raw

```

72 Val Ser Ala
73      115
76 <210> SEQ ID NO: 3
77 <211> LENGTH: 336
78 <212> TYPE: DNA
79 <213> ORGANISM: Artificial Sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Variable region of humanized light chain HZIV
84 <400> SEQUENCE: 3
85 gatatcgtga tgacccaaac tccactttct ttgtcgggta cccctggaca accagcctct      60
87 atctcttgca agtcaagtca ggcctcttta tataagtaatg gaaaaaccta tttgaattgg      120
89 ttattacaga agccaggcca gcctccacag cgcctaattct atctgggtgtc taatcgggac      180
91 tctggagtcc ctgacagggt cagtggcagt ggatcaggaa cagattttac actgaaaatc      240
93 agcagagtgg aggctgagga tgttggagtt tattactgcg tgcaaggtac acattttcct      300
95 cagacgttcg gtggaggcac caaggtggaa atcaaa      336
98 <210> SEQ ID NO: 4
99 <211> LENGTH: 112
100 <212> TYPE: PRT
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Variable region of humanized light chain HZIV
106 <400> SEQUENCE: 4
107 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
108      1      5      10      15
110 Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
111      20      25      30
113 Asn Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Lys Pro Gly Gln Pro
114      35      40      45
116 Pro Gln Arg Leu Ile Tyr Leu Val Ser Asn Arg Asp Ser Gly Val Pro
117      50      55      60
119 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
120      65      70      75      80
122 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Val Gln Gly
123      85      90      95
125 Thr His Phe Pro Gln Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
126      100      105      110
131 <210> SEQ ID NO: 5
132 <211> LENGTH: 26
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: oligomer Ryu94
140 <400> SEQUENCE: 5
141 gagaattcac attcacgatg tacttg      26
144 <210> SEQ ID NO: 6
145 <211> LENGTH: 33
146 <212> TYPE: DNA
147 <213> ORGANISM: Artificial Sequence
149 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/508,759B

TIME: 09:54:43

Input Set : A:\A30215APGSEQ-amended.txt

Output Set: N:\CRF4\08282006\J508759B.raw

```

150 <223> OTHER INFORMATION: oligomer HUR43-1
153 <400> SEQUENCE: 6
154 ctgctgcagc tggacctgac tctggacacc att 33
157 <210> SEQ ID NO: 7
158 <211> LENGTH: 33
159 <212> TYPE: DNA
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: oligomer HUR44-1
166 <400> SEQUENCE: 7
167 caggctccagc tgcagcagtc tggacctgaa ctg 33
170 <210> SEQ ID NO: 8
171 <211> LENGTH: 33
172 <212> TYPE: DNA
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: oligomer HUR45-1
179 <400> SEQUENCE: 8
180 tgggcccttg gtggaggctg cagagacagt gac 33
183 <210> SEQ ID NO: 9
184 <211> LENGTH: 33
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: oligomer HUR46-1
192 <400> SEQUENCE: 9
193 gcctccacca agggcccatc ggtcttcccc ctg 33
196 <210> SEQ ID NO: 10
197 <211> LENGTH: 28
198 <212> TYPE: DNA
199 <213> ORGANISM: Artificial Sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: oligomer HUR31
205 <400> SEQUENCE: 10
206 cagcggccgc tcatttaccc ggggacag 28
209 <210> SEQ ID NO: 11
210 <211> LENGTH: 26
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: oligomer Ryu86
218 <400> SEQUENCE: 11
219 caaagcttgg aagcaagatg gattca 26
222 <210> SEQ ID NO: 12
223 <211> LENGTH: 27
224 <212> TYPE: DNA
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <223> OTHER INFORMATION: oligomer HUR48

```

RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/508,759B

TIME: 09:54:43

Input Set : A:\A30215APGSEQ-amended.txt

Output Set : N:\CRF4\08282006\J508759B.raw

```

231 <400> SEQUENCE: 12
232 caagatatcc ccacaggtac cagatac 27
235 <210> SEQ ID NO: 13
236 <211> LENGTH: 27
237 <212> TYPE: DNA
238 <213> ORGANISM: Artificial Sequence
240 <220> FEATURE:
241 <223> OTHER INFORMATION: oligomer HUR49
244 <400> SEQUENCE: 13
245 tgtggggata tcttgatgac ccaaact 27
248 <210> SEQ ID NO: 14
249 <211> LENGTH: 27
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
254 <223> OTHER INFORMATION: oligomer HUR50
257 <400> SEQUENCE: 14
258 cacagatctt ttgatttcca gcttggt 27
261 <210> SEQ ID NO: 15
262 <211> LENGTH: 27
263 <212> TYPE: DNA
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: oligomer HUR51
270 <400> SEQUENCE: 15
271 atcaaaagat ctgtggctgc accatct 27
274 <210> SEQ ID NO: 16
275 <211> LENGTH: 58
276 <212> TYPE: DNA
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
280 <223> OTHER INFORMATION: oligomer CK1D
283 <400> SEQUENCE: 16
284 ggcgcgtcta gaattaacac tctcccctgt tgaagctctt tgtgacgggc gaactcag 58
287 <210> SEQ ID NO: 17
288 <211> LENGTH: 27
289 <212> TYPE: DNA
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: oligomer YM001N
296 <400> SEQUENCE: 17
297 ccggaattca cattcacgat gtacttg 27
300 <210> SEQ ID NO: 18
301 <211> LENGTH: 16
302 <212> TYPE: DNA
303 <213> ORGANISM: Artificial Sequence
305 <220> FEATURE:
306 <223> OTHER INFORMATION: oligomer YM003
309 <400> SEQUENCE: 18

```

RAW SEQUENCE LISTING

DATE: 08/28/2006

PATENT APPLICATION: US/10/508,759B

TIME: 09:54:43

Input Set : A:\A30215APGSEQ-amended.txt

Output Set : N:\CRF4\08282006\J508759B.raw

```

310 tgcccccaga ggtgct 16
313 <210> SEQ ID NO: 19
314 <211> LENGTH: 33
315 <212> TYPE: DNA
316 <213> ORGANISM: Artificial Sequence
318 <220> FEATURE:
319 <223> OTHER INFORMATION: oligomer ym257
322 <400> SEQUENCE: 19
323 acgcattcag tgcttcttgg atgaactggg tga 33
326 <210> SEQ ID NO: 20
327 <211> LENGTH: 31
328 <212> TYPE: DNA
329 <213> ORGANISM: Artificial Sequence
331 <220> FEATURE:
332 <223> OTHER INFORMATION: oligomer YM258
335 <400> SEQUENCE: 20
336 atccaagaag cactgaatgc gtagccagaa g 31
339 <210> SEQ ID NO: 21
340 <211> LENGTH: 38
341 <212> TYPE: DNA
342 <213> ORGANISM: Artificial Sequence
344 <220> FEATURE:
345 <223> OTHER INFORMATION: oligomer YM004
348 <400> SEQUENCE: 21
349 ccaattcaaa gcggtttttc cattactata taagaggc 38
352 <210> SEQ ID NO: 22
353 <211> LENGTH: 32
354 <212> TYPE: DNA
355 <213> ORGANISM: Artificial Sequence
357 <220> FEATURE:
358 <223> OTHER INFORMATION: oligomer YM009
361 <400> SEQUENCE: 22
362 gcagccaccg tacgtttgat ttccaccttg gt 32
365 <210> SEQ ID NO: 23
366 <211> LENGTH: 39
367 <212> TYPE: DNA
368 <213> ORGANISM: Artificial Sequence
370 <220> FEATURE:
371 <223> OTHER INFORMATION: oligomer Ryu 166
374 <400> SEQUENCE: 23
375 ggatttgtct gcagtcattg tggctctgcc ctggaactt 39
378 <210> SEQ ID NO: 24
379 <211> LENGTH: 27
380 <212> TYPE: DNA
381 <213> ORGANISM: Artificial Sequence
383 <220> FEATURE:
384 <223> OTHER INFORMATION: oligomer Hur 37
387 <400> SEQUENCE: 24
388 gacaaatcca cgagcacagt ctacatg 27

```

VERIFICATION SUMMARY

DATE: 08/28/2006

PATENT APPLICATION: US/10/508,759B

TIME: 09:54:44

Input Set : A:\A30215APGSEQ-amended.txt

Output Set: N:\CRF4\08282006\J508759B.raw